

Abstract

Compact Reactant Gas Plumbing Serving Dual Identical Fuel Cell Stacks

A power plant (10) having a pair of substantially identical fuel cell stacks (12, 13), each having an oxidant or fuel inlet/outlet manifold (15, 16) identical to the fuel inlet/outlet manifold of the other stack, each fuel inlet/outlet manifold mounted on the same side of the corresponding stack as the other fuel inlet manifold on the other stack (the right side herein). Fuel inlet/outlet plumbing is disposed at the end of one of the stacks (12) between the fuel inlet/outlet manifolds (15, 16), the plumbing including a T-like transition (43) between a fuel supply pipe (46) and a fuel inlet tube (39) that feeds the inlets of both of the inlet/outlet manifolds (15, 16). At each fuel inlet/outlet manifold, the side which is not connected to plumbing is blocked off with a seal plate (25, 32). Fuel inlet and outlet tubes (38, 39) include flexible tubing portions, whereby to allow for dimensional and/or positional variations between fuel cell power plants.